

In the Claims

1. (currently amended) A flame retardant ~~polyolefin~~polymeris electrical part composition which comprises

(a) a ~~polyolefin~~thermoplastic resin and

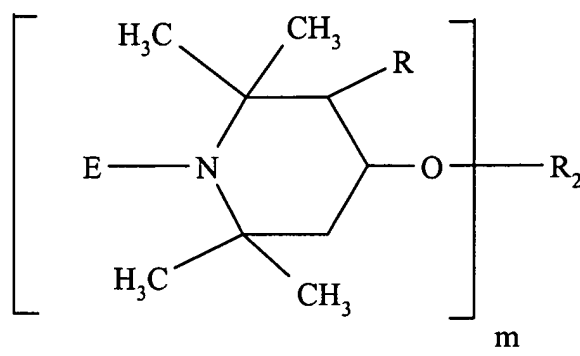
(b) an effective flame retarding amount of a synergistic mixture of

(i) at least one sterically hindered alkoxyamine stabilizer and

(ii) at least one brominated hydrocarbyl phosphate or phosphonate ~~conventional organohalogen~~-flame retardant,

where the weight ratio of component (i) to component (ii) is ~~between about 1:14 to about 1:50~~about 1:5 to about 1:200 and where the mixture of component (b) is present from about 8% to about 17% by weight based on the weight of component (a) and

where the alkoxyamines of component (i) are of the formula



where

E is -O-methyl, -O-propyl or -O-cyclohexyl

m is 1 to 4,

when m is 1,

R₂ is hydrogen, C₁-C₁₈alkyl or said alkyl optionally interrupted by one or more oxygen atoms, C₂-C₁₂alkenyl, C₆-C₁₀aryl, C₇-C₁₈aralkyl, glycidyl, a monovalent acyl radical of an aliphatic, cycloaliphatic or aromatic carboxylic acid, of a carbamic acid, of a cycloaliphatic carboxylic acid having 5-12 C atoms or of an aromatic carboxylic acid having 7-15 C atoms,

when m is 2,

R₂ is C₁-C₁₂alkylene, C₄-C₁₂alkenylene, xylylene, a divalent acyl radical of an aliphatic, cycloaliphatic, araliphatic or aromatic dicarboxylic acid or of a dicarbamic acid, of a cycloaliphatic or aromatic dicarboxylic acid having 8-14 C atoms, or of an aliphatic, cycloaliphatic or aromatic dicarbamic acid having 8-14 C atoms;

when m is 3,

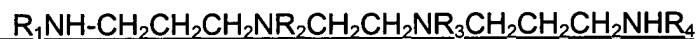
R₂ is a trivalent acyl radical of an aliphatic, unsaturated aliphatic, cycloaliphatic, or aromatic tricarboxylic acid; and

when m is 4,

R₂ is a tetravalent acyl radical of a saturated or unsaturated aliphatic or aromatic tetracarboxylic acid,

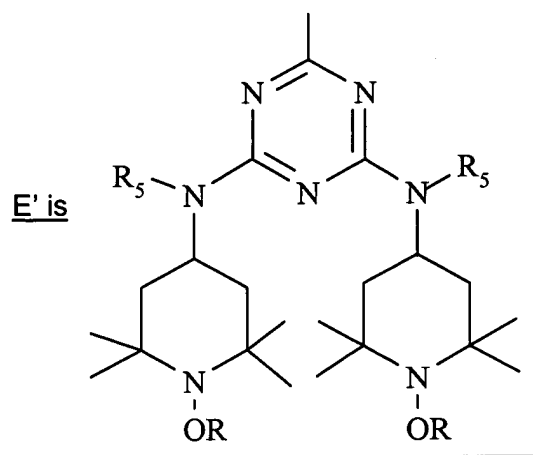
or

where the alkoxyamines are of the formula



where

R₁ and R₂ are the s-triazine moiety E'; and one of R₃ and R₄ is the s-triazine moiety E' with the other of R₃ or R₄ being hydrogen.



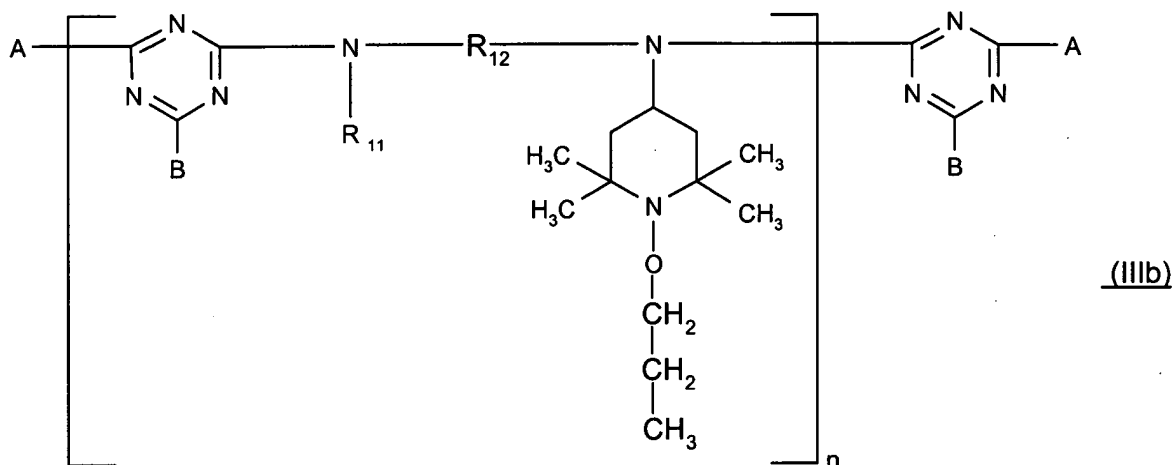
R is methyl, propyl or cyclohexyl.

R₅ is alkyl of 1 to 12 carbon atoms.

which compound is prepared by reacting two to four equivalents of 2,4-bis[(1-hydrocarbyloxy-2,2,6,6-tetramethylpiperidin-4-yl)butylamino]-6-chloro-s-triazine with one equivalent of N,N'-bis(3-aminopropyl)ethylenediamine;

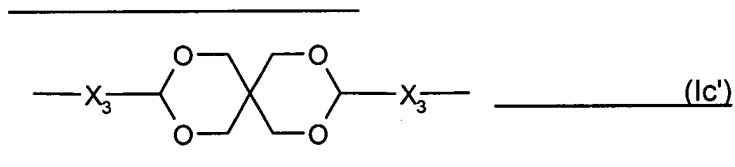
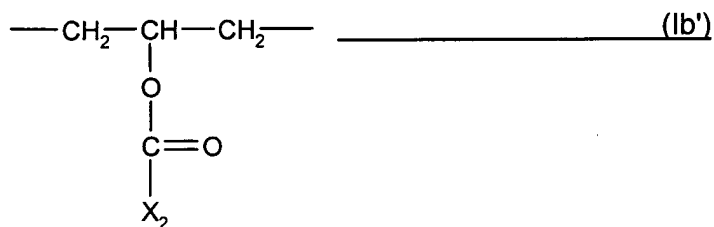
or

where the alkoxyamines are of the formula IIIb



in which the index n ranges from 1 to 15;

R₁₂ is C₂-C₁₂alkylene, C₄-C₁₂alkenylene, C₅-C₇cycloalkylene, C₅-C₇cycloalkylene-di(C₁-C₄alkylene), C₁-C₄alkylenedi(C₅-C₇cycloalkylene), phenylenedi(C₁-C₄alkylene) or C₄-C₁₂alkylene interrupted by 1,4-piperazinediyl, -O- or >N-X₁ with X₁ being C₁-C₁₂acyl or (C₁-C₁₂alkoxy)carbonyl or having one of the definitions of R₁₄ given below except hydrogen; or R₁₂ is a group of the formula (Ib') or (Ic');

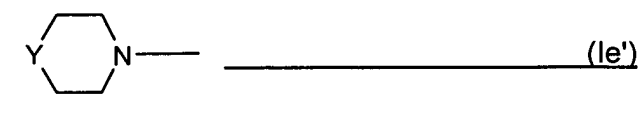


X₂ being C₁-C₁₈alkyl, C₅-C₁₂cycloalkyl which is unsubstituted or substituted by 1, 2 or 3 C₁-C₄alkyl; phenyl which is unsubstituted or substituted by 1, 2 or 3 C₁-C₄alkyl or

C₁-C₄alkoxy; C₇-C₉phenylalkyl which is unsubstituted or substituted on the phenyl by 1, 2 or 3 C₁-C₄alkyl; and

the radicals X₃ being independently of one another C₂-C₁₂alkylene;

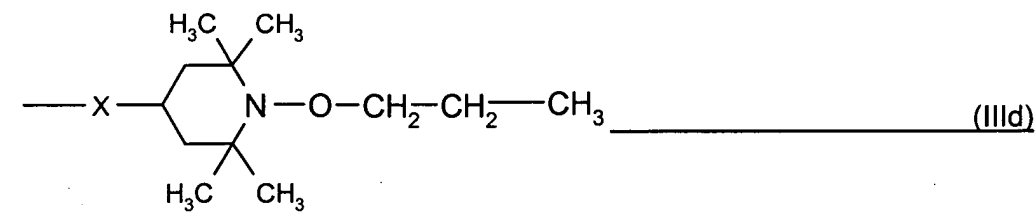
R₁₃, R₁₄ and R₁₅, which are identical or different, are hydrogen, C₁-C₁₈alkyl, C₅-C₁₂cycloalkyl which is unsubstituted or substituted by 1, 2 or 3 C₁-C₄alkyl; C₃-C₁₈alkenyl, phenyl which is unsubstituted or substituted by 1, 2 or 3 C₁-C₄alkyl or C₁-C₄alkoxy; C₇-C₉phenylalkyl which is unsubstituted or substituted on the phenyl by 1, 2 or 3 C₁-C₄alkyl; tetrahydrofurfuryl or C₂-C₄alkyl which is substituted in the 2, 3 or 4 position by -OH, C₁-C₈alkoxy, di(C₁-C₄alkyl)amino or a group of the formula (Ie');



with Y being -O-, -CH₂-, -CH₂CH₂- or >N-CH₃,

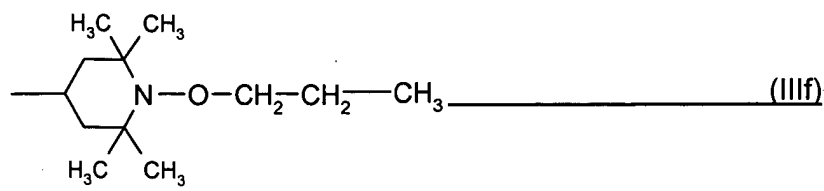
or -N(R₁₄)(R₁₅) is additionally a group of the formula (Ie');

the radicals A are independently of one another -OR₁₃, -N(R₁₄)(R₁₅) or a group of the formula (IIId);



X is -O- or >N-R₁₆;

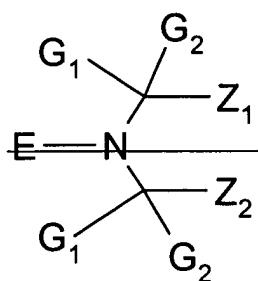
R₁₆ is hydrogen, C₁-C₁₈alkyl, C₃-C₁₈alkenyl, C₅-C₁₂cycloalkyl which is unsubstituted or substituted by 1, 2 or 3 C₁-C₄alkyl; C₇-C₉phenylalkyl which is unsubstituted or substituted on the phenyl by 1, 2 or 3 C₁-C₄alkyl; tetrahydrofurfuryl, a group of the formula (IIIf),



or C_2 - C_4 alkyl which is substituted in the 2, 3 or 4 position by -OH, C_1 - C_8 alkoxy, di(C_1 - C_4 alkyl)amino or a group of the formula (Ie');

R_{11} has one of the definitions given for R_{16} ; and

the radicals B have independently of one another one of the definitions given for A



where

~~_____ G_1 and G_2 are independently alkyl of 1 to 8 carbon atoms or are together pentamethylene,~~

~~_____ Z_1 and Z_2 are each methyl, or Z_1 and Z_2 together form a linking moiety which may additionally be substituted by an ester, ether, amide, amino, carboxy or urethane group, and~~

~~_____ E is O-methyl, O-propyl or O-cyclohexyl.~~

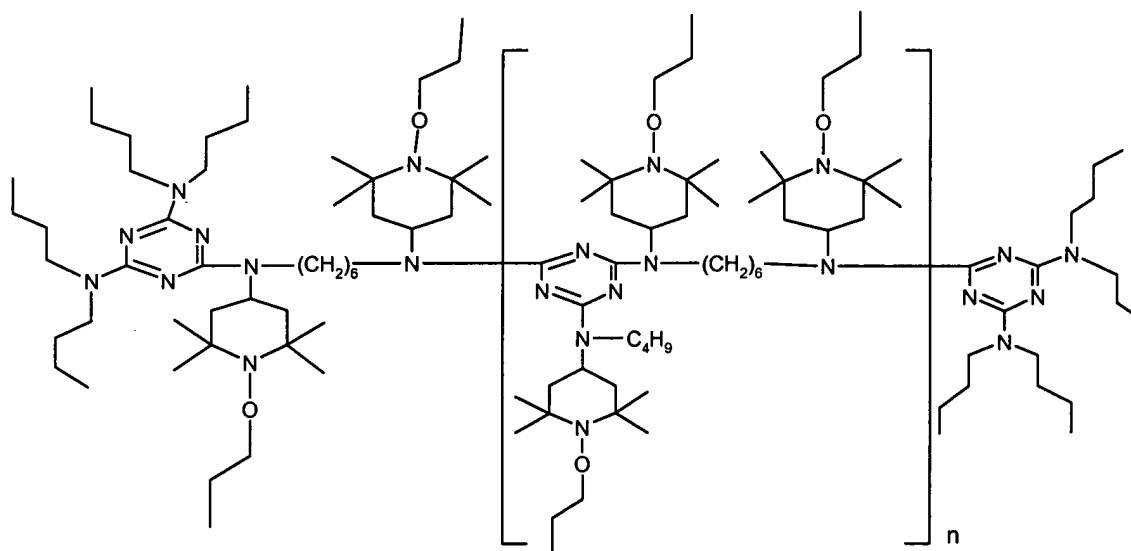
2. (canceled)

3. (canceled)

4. (currently amended) A composition according to claim 1[[3]] where the alkoxyamines are selected from the group consisting of

~~1-cyclohexyloxy-2,2,6,6-tetramethyl-4-octadecylaminopiperidine;~~
~~2,4-bis[(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl)butylamino]-6-(2-hydroxyethylamino)-s-triazine;~~
 bis(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl) adipate;
~~2,4-bis[(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl)butylamino]-6-chloro-s-triazine;~~
 the reaction product of 2,4-bis[(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl)butylamino]-6-chloro-s-triazine with N,N'-bis(3-aminopropyl)ethylenediamine) [CAS Reg. No. 191680-81-6]; and

the compound of formula



in which n is from 1 to 15.

5. (currently amended) A composition according to claim 1[[3]] where E is cyclohexyloxy.

6-9. (canceled)

10. (currently amended) A composition according to claim 1 where the brominated hydrocarbyl phosphate or phosphonate~~organohalogen~~ flame retardant is tris[3-bromo-2,2-bis(bromomethyl)propyl]phosphate or bis(2,3-dibromopropyl ether) of tetrabromobisphenol A.

11. (currently amended) A composition according to claim 1 where the polyolefin~~thermoplastic~~ resin is polypropylene, polyethylene~~[[,]]~~or propylene/ethylene copolymer~~or polystyrene~~.

12-14. (canceled)

15. (original) A composition according to claim 1 where the weight ratio of component (i) to component (ii) is about 1:30 to about 1:50.

16. (canceled)

17. (canceled)

18. (original) A composition according to claim 1 further comprising melamine based flame retardants.

19. (original) A composition according to claim 1 containing no filler or a filler in an amount less than about 3% by weight based on the weight of component (a).

20. (original) A composition according to claim 1 which further comprises

(c) an acid scavenger.

- 21. (original)** A composition according to claim **20** where the acid scavenger is selected from the group consisting of natural or synthetic hydrotalcites and amorphous basic aluminum magnesium carbonates.
- 22. (original)** A composition according to claim **20** where the acid scavenger is present from about 0.1% to about 1.0% by weight, based on the weight of component (a).
- 23. (original)** A composition according to claim **20** where the acid scavenger is present from about 0.2% to about 0.8% by weight, based on the weight of component (a).
- 24. (original)** An electrical part composition according to claim **1** which is a plug, socket or wire insulation.
- 25. (original)** An electrical part composition according to claim **20** which is a plug, socket or wire insulation.
- 26. (canceled)**